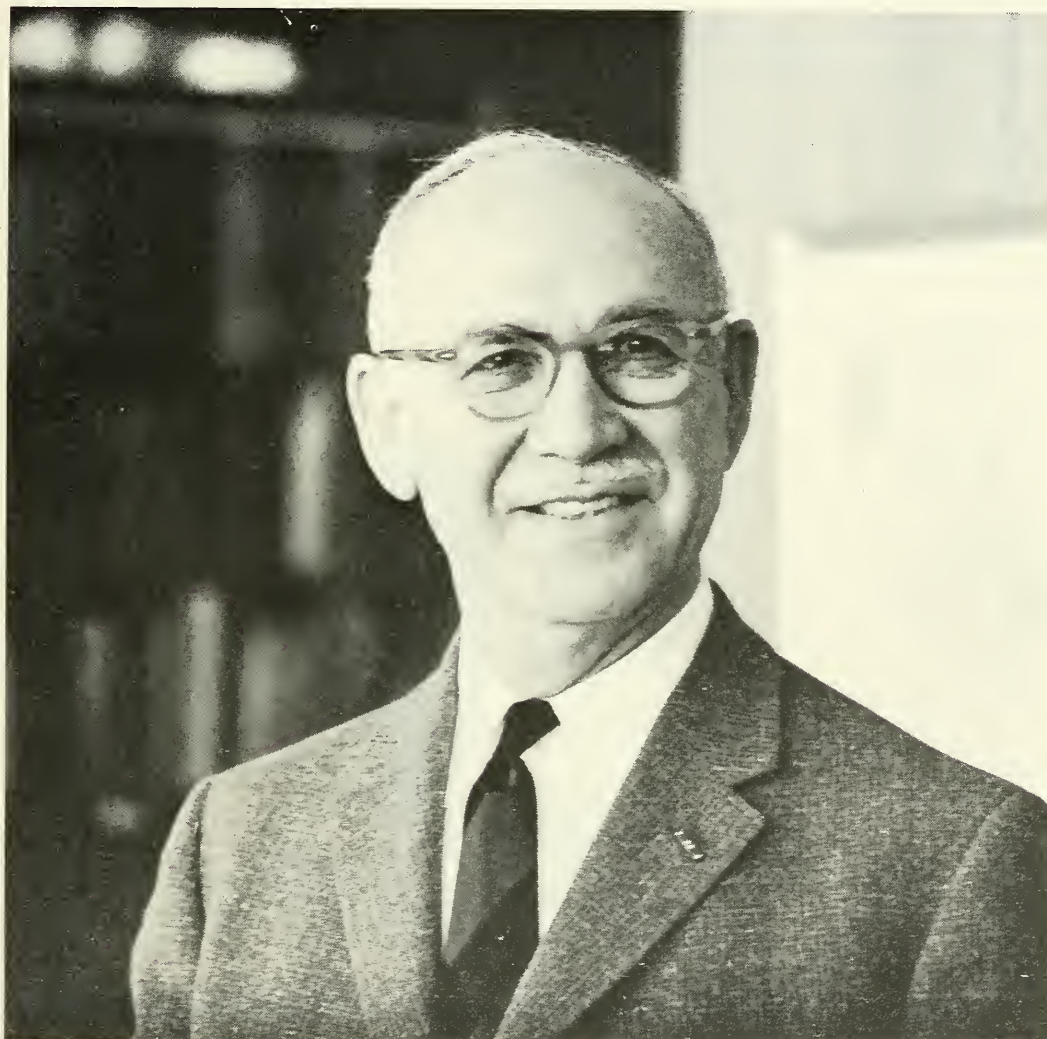


The Society of Bibliophiles at Brandeis University

# OCTAVO

An Occasional Communication

Number 4, Spring 1973



BERN DIBNER

Il fondatore della nostra biblioteca leonardesca

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no. 4

On the occasion of his retirement  
from the Chair  
his colleagues in the Society of Bibliophiles  
at Brandeis University  
are pleased to dedicate this number to

BERN DIBNER

by recalling the words that  
Francesco Melzi employed for Leonardo da Vinci

*Nature cannot again produce his like*

THE SOCIETY OF BIBLIOPHILES AT BRANDEIS UNIVERSITY

Bern Dibner, *President*

David S. Berkowitz, *Editor*

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## BERN DIBNER AS FRIEND AND COLLECTOR

“Bern Dibner as Collector and Friend” was the title originally offered to me when I was asked to write something for this tribute. My immediate reaction was that the proper title should be “Bern Dibner as Friend and Collector.” For those of us in the book trade who have enjoyed the privilege, knowing and serving him has become a rewarding relationship of friend to friend. Wherever one travels in England, France, Italy, Belgium, Holland, Germany, or the Scandinavian countries, the mention of Bern Dibner’s name to a bookseller is a sure way to establish a bond of warmth. Just last week I had a letter from an English country bookseller who spoke of him as “dear Bern Dibner with his high and yet, not too high seriousness.” He represents to the booksellers the ideal type of bookman — the man who buys a book because he wants it and not as a speculation, who knows and values what he buys in terms of its importance in the field of his collecting, who buys wisely, but does not haggle or drive too hard a bargain, who says yes or no within a reasonable time, and who gives due credit in his publications to bookmen and scholars alike.

Bern Dibner is among the five or six collectors who have been most influential in my development as a specialist bookseller. It was, I think, about 1942 that Kate Steinitz, librarian for Dr. Elmer Belt, brought Bern to our carriage house bookshop. A very few words were enough to establish our links of a community of philosophy and sentiment and the years have tempered and made them more fast. In 1953, Dr. Herbert Evans of Berkeley, that giant inseminator of the collecting of the History of Science, had decided to sell his collection. Bern wanted some, but not all, of the books in the Evans Library. I wanted to buy it, but lacked one ingredient; the money. Bern provided the solution. He sent me a list of the 100 books he wanted together with a check for \$10,000 — as an advance and said, “use this money as a down payment, price the books I want as you would for anyone else, send them to me as you get them described and priced, and I will pay whatever difference as soon as you need it.” Not only was I able to buy the library, but I was able to issue a series of catalogues which brought me to the attention of bookmen and established me as a dealer with a substantial stock. Through the years that have followed, we have joined in a number of other benign conspiracies, both as to book buying and publishing. We have met frequently at meetings and as fellow travelers in the Grolier Club trips abroad. We have shared many sumptuous feasts, both of food and of books. Together with his beloved Billie, he has been a model of gentleness and joyousness and has been as equable when slicing up an apple and a piece of cheese between us as when dining in the hall of royalty. Their simple, forthright ways are the wonder and delight of all who know their company.

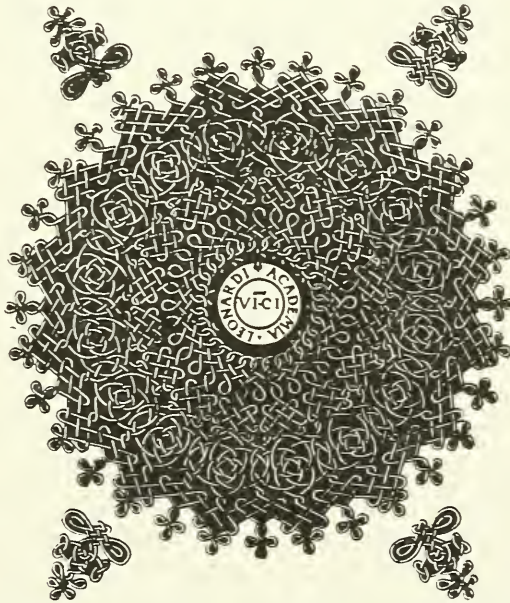
It is not only the book trade, but the entire world of culture that has enjoyed the helpfulness of the Dibners. All of the societies which foster the history of science and technology are under deeper obligation to them than will ever be known. His Burndy Library has become a magnet for scholars and gives promise of an even broader sphere of usefulness in the future. His leadership in Technion and as a friend of Brandeis are but the tip of the iceberg (I use an inept figure of speech here, for nothing Bern does is without warmth of spirit). The extent of



his and Billie's personal benefactions are beyond telling, for theirs are the ways of modesty and selfless sharing.

Long before they acquired a backlog of security, Bern and Billie decided that they would live their lives for more than the making of money. They decided to invest in acquiring a cultural capital, not in the dim future, but in each year as they lived it. The first time that they got \$1,000 out of his business, they decided not to invest it in stocks and bonds, but in the bluest chips of all — a year of travel to the shrines of knowledge and beauty in Europe. Through the years that have followed, Bern and Billie have traveled and studied. Learning has been not only their hobby, it has been their chief career. The fruits of this have been not only a great library and a considerable shelf of publications on the History of Science and some of its notable figures, but a world wide roster of friendships with scholars and fortunate booksellers like myself, who look forward to their coming and save their rarest gems until they arrive.

To have Bern Dibner for a customer is a very good thing indeed, but to have him for a friend is to be rarely fortunate. For him living is sharing in all things and I am proud to have such an abundant share of his friendship and to have a share in the paying of this tribute to him and his lovely wife.



*The 'fantasia dei vinci,' engraved ca. 1510*

With its play on the word *vincire*, to knot, to lace, to fetter, the interlacing ornament constitutes a cryptographic signature, etymologically, artistically and philosophically appropriate for Leonardo da Vinci. The outer perimeter design-element in the facsimile above is also found delicately embroidered on the gown of Mona Lisa and the lacing motif is prominent in the portrait of Ginevra de' Benci.

BERN DIBNER,  
TWENTIETH CENTURY HUMANIST

To understand the complexities of Bern Dibner's intellectual achievements, his life work in the history of medicine and his aspirations for the future, I drove on May 1, 1973 to The Burndy Library in Norwalk, Connecticut, and walked up the familiar stone steps before the stunning rectangular modular library building, moving briskly to escape from the bite of the rain. Inside the glass door, one is in the placid atmosphere of a cloister, and I stood awed once again, in the great central hall surrounded by the tall book cases of treasure upon treasure, amidst the green beige-covered exhibitions tables, and walked slowly about to peer at the many portraits and busts of scientists. It was a room, I knew, that had often been enlivened by symposia or meetings of scientific societies. Through the tall east windows, the glimpse of the rain-swept garden patio added to the feeling of calm study and peacefulness. I looked above to the balcony on which the western setting sun glistened from the tubes and bars of electric machine. Around were the nearly 40,000 books and pamphlets, the holograph letters, and the laboratory notebooks of famous scientists that make the Burndy Library incomparable in its extent to any private library and most of the public science libraries in America. I walked over to the more than 300 incunabula in their separate locked book case; and then climbed to the balcony to inspect the largest working library on electricity and magnetism in the world, the working collection from which Dibner gleans the numerous facts for his publication.

But quietly Bern Dibner had joined me and bade me welcome. He stood erect, his bright eyes, thoughtful and understanding expression, his smile, his compact youthful figure belieing his more than 70 years of age. I listened attentively as my host commented enthusiastically on the items in his Library and sensed immediately the spirit of the scholar and zealous advocate of collecting. We sat in book-talk for only a short time and then moved to one of the three exhibition rooms to inspect a new display. Dibner pointed to some of the photographs of his many scientist friends, which I noted, were inscribed affectionately to him. As we lifted the beige covers from the tables, he would comment on each book, recalling its unique features and historical importance. Each was the occasion for an anecdote of his search for this volume and its final capture. His depth of knowledge and ability to communicate was most impressive. His mind danced from topic to topic, fact to fact, opinion to opinion with the agility of a twenty year old. We talked of his career, first his life's work and then his compelling avocation.

*The Engineer*

Both Bern and his wife were born in Ukraina; and like many a European they have mastered the languages of several countries. His career as an engineer began near Manhattan. After World War I involvement, he attended the Polytechnic Institute of Brooklyn and became involved as a design engineer for companies

involved in the transmission of electrical power. One project was the unification of numerous small power installations scattered over the island of Cuba. Each company had different machinery and transmission cables. To make a grid out of these various sized wires and conduits appeared to be impossible with any known connecting device. Then and there, Dibner invented a connector which was universal in its connecting capabilities. The grid was accomplished. The connector was patented in his name. For this little connector, multiplied into many sizes and shapes, Dibner had to find a place of manufacture; the first was on East 46th Street in New York. In 1933 the factory moved to the Bronx and in 1951 to its present 11-acre site in Norwalk, Connecticut.

### *The Student*

Bern Dibner was first attracted to the avocation of collecting in the field of science by two pages in a 1929 book by Stuart Chase, *Men and Machines*. The account of more than two dozen inventions by the fifteenth century Leonardo da Vinci on pages 61 and 62 seemed incredible to his own inventive mind. Could this be possible? 500 years ago? The reader can share his wonderment at the Italian engineer's genius and ability in new directions of scientific achievement by pondering on Stuart Chase's succinct listing:

He anticipated Copernicus on planetary motions, and Newton on gravitation.

He surmised that the earth revolved.

He discovered the earth shine on the dark of the moon.

He reconstructed animals from fossils.

He analyzed the molecular composition of water.

He worked out a theory of wave motion, and the undulation theory of light and heat.

The first plus and minus signs in Italy were employed by him.

He studied the formation of regular polyhedrons.

He deduced that fire feeds on an element in the air.

He worked out the laws of a lever moving on an inclined plane, and formulae for the volume of water needed to fill canals.

The density of gases he measured.

He made extensive studies of the composition of explosives.

The tides he attributed to the pull of the sun.

He invented the barometer, and projected the thermometer.

He improved the compass and the balance.

Cams, gears, worms, ratchets, sprockets, chains, were all used by him.

A stone-cutting saw of his invention is still in service in a Carrara marble quarry.

He designed a steam boat, steam pumps and a steam cannon.

He designed buoys, diving apparatus, and the first life preserver.



He designed rolling mills, draw-benches, power-hammers, cranes, threading machines, file-cutting machines, rope-making machines, lathes, planes, boring mills, jigs, chucks, bending machines, multiple cloth cutters, jig looms, dredges, and a machine for drawing and rolling iron staves.

Automatic machinery for needle grinding and gold beating was known to him.

He planned a radius grinder for wire in the manufacture of concave deflectors.

He designed catapults, ballistas, cross-bows bent with windlasses, scaling and battering engines, breech-loading cannon, artillery carriages, multiple-barrelled guns.

He knew the use of the parachute.

He designed airplanes, ornithopters, and helicopters.

Inspired by this problem and desiring to probe deeper in the background of Leonardo's accomplishments, he took his family, in a sabbatical year from business, to Zurich in 1936 and 1937. He studied at the University of Zurich, but in his free time began to search out the antiquarian book dealers in central Europe. He began to form those bonds of friendship and mutual understanding so essential to the collector who wants to secure not only the right book, but also the rare and unique one. All great collections have depended much on the friendly regards of dealers, who are usually the first to know of fine material entering the marketplace.

There was a return trip to Europe during World War II as a Lieutenant Colonel in the Air Force, with the chief duty of studying firsthand the effectiveness of bombing on buildings, bridges and cities. He was to enter Berlin from the west as the Russians entered from the east. Even London's own bombing did not deter his pursuit of books. One evening while desultory bombing was going on, he visited, as was his wont, a book dealer who had his few remaining holdings in the cellar recesses of his bombed-out London establishment. To go back to his quarters, Dibner decided to cross Portman Square not around to the left as was his custom, but to the right. Walking along the right side, a bomb suddenly struck and destroyed all the buildings on the left. Was there a voice or instinct that had told him to go home the less familiar right route? Years later, the same London dealer had a precious rare medical book, *Treatise of the Scurvy* by James Lind, Edinburgh, 1753. He had many bids for it but chose to offer it to Dibner out of memory of this almost miraculous escape from death of this friend crossing Portman Square.

### *The Founder of a Library*

Like other collectors on a large scale, Dibner's chief problem was not acquisitions but rather adequate housing for his rapidly growing collection. With his own office walls bursting, he pre-empted those in the adjoining offices, then the corridors in the executive wing, with busts perched precariously atop the room dividers. Soon he had outgrown the Norwalk factory, as he had earlier outgrown



the Bronx buildings. Obviously a separate building was in order. On a corner of the original acreage, but abutting the noisy Connecticut Turnpike, he erected the new Burndy Library, based on the plans of William Rogus. Since the opening in 1963, the books have grown in number to nearly 40,000, and his working library in Electricity and Magnetism is the largest in the world.

### *The Exhibitor*

In the new Library, Dibner has mounted many exhibitions; at my visit there were three exhibits, all carefully annotated and labelled, any one of which could be the subject of another book. One had been for a recent scientific meeting in the Library. He has been generous with loans to the nearby University of Bridgeport and to Brandeis University in Waltham, Mass. On a national scale his material has been shown at the Grolier Club in New York City; and on an international scale, he sent 12 precious items to London for display in that memorable exhibit entitled "Printing and the Mind of Man," a stellar display under the patronage of Queen Elizabeth II. In less than a dozen years the Burndy Library has acquired worldwide renown in its special field of collecting.

### *The Scholar*

Any man will be known eventually by his good deeds, his inventions, his students, but most permanently by his writings. How the writings of Shakespeare completely eclipsed all known facts of his biography; how little we know of this man! But here Dibner has little to fear, for he has written ably and well.

Beginning in 1942, the Burndy Library imprint has appeared on 27 books in the history of science, each in its way a contribution to the literature of this field. Of these 27 books, Bern Dibner has been the sole author of 16; joint author in 2; and editor in 6. Three have been written by other authorities: I. Bernard Cohen of Harvard University, L. Sprague de Camp and Herbert W. Meyer. Among the significant scientists who have had some facet of their creativity well and thoroughly explored by Dibner, are Agricola, Boyle, Darwin, Faraday, Galileo, Galvani (in 3 books), Gilbert, Leonardo da Vinci (in 2 books), Oersted, Roemer, Röntgen, Schedel, Schusser, Strachonus, and Volta (in 3 books). Each book has been carefully written in a clear, (but sometimes academic) tone, after painstaking research, attested by the abundant bibliography of pertinent sources, most of which are listed as in the Burndy Library. The illustrations are sharp and include portraits from contemporary sources (even a frontispiece of Oersted in color), reproductions of title pages, facsimiles of signatures, laboratory notes or, as with Galileo, an entire long letter, and often diagrams. The pages of each book are large and the two columns of print are clear and easily readable. The many footnotes often provide the reader with the exact dates of publications of early discoveries, both in the author's native tongue and then in the earliest translations into other languages.

A characteristic example of Dibner's scholarship is seen in his work on Oersted, discoverer of electromagnetism. Oersted's original communication in Latin is reproduced as a facsimile, with a facing English translation. In his text,

Dibner takes the first eight of his 45 pages of text to discuss the importance of Volta's 1800 achievement of a "continuous-current electricity," a tool necessary for Oersted's 1820 discovery of electromagnetism. There is a concise life of Oersted and his scientist brother. After publication of his discovery, Dibner relates the stunning reception of this new phenomenon by fellow scientists in Europe and America. He writes of two inventions that led directly from Oersted's discovery, the telegraph, and Faraday's discovery of electromagnetic induction. Dibner's final paragraphs tell of Oersted's honors during life and his enormous funeral procession headed by the King of Denmark. For Dibner, the cumulative character of modern science is the point of excitement. Here he has emphasized the necessary prerequisite discoveries for a single significant achievement by a later worker, which in its own time will lead to new discoveries. This theme of the interrelationship of past accomplishments stimulating new workers who in their own work inspire new advances is a central theme in most of Dibner's work. The means to an effect being the means to an effect (as Gertrude Stein would say) has always been a central thought in the philosophy of science; its recognition by a historian shows great insight into a particular phenomenon newly "discovered" and into its relevance to the past and to the future.

In another of his works, *The Heralds of Science*, Dibner has demonstrated the essential bond between collecting and scholarship — a relationship which is less than apparent to many. First published in 1955, it appears at first sight as a modest catalogue of 200 books and pamphlets which can be regarded as the foundation stones of modern science. But the deceptive simplicity of his annotation for each item displays his uncanny ability to discard the secondary for the seminal work, an exercise in judgement and taste which reveals ripe scholarship at work.

### *The Man*

As I stepped out of the Library into the twilight, deepened by the overcast western sky, I watched him return to his study desk. What would he accomplish next? As I pondered on the answer I thought less of the next incunable or manuscript acquired or book written. What impressed me most in this industrialist metamorphosed into a scholar-collector was the example he had set. I knew he had been in the forefront of many scientific societies and had organized many groups of people in good works for science. In recent years I had become acquainted with his work at Brandeis with the Society of Bibliophiles. Here, I concluded was the essential dimension of the man — now to lead, now to support others, in creating new corporate groups to provide sustenance for our cultural traditions. As I waved to him from the bottom of the stairs what ran through my mind was the importance to our society of having men who, by their own examples of generosity, inspire others to give and who in these hectic times still possessed the confidence in the future to persuade others that the support of our humanistic endeavors is both rewarding and vital.

## THE BURNDY LIBRARY AND ITS FOUNDER

The private library and the private collector have always played an important role in research and the advancement of learning. Behind every private library there must always be a private collector. Whether his collecting interests are based on college experiences or occupational or professional concerns or on the most unlikely inspiration, he will exhibit in all cases one characteristic: a passion for completeness. He has been known to drop his important bread-winning pursuits to dash after a fugitive edition on the merest suspicion of a hint that it may exist in Kathmandu or God-knows-where. But in this characteristic he is moved to perform a most valuable service to the scholar, the old fashioned scholar who insists on seeing every edition and every variant of every particular work which is germane to his investigation. (Heaven save us from the frantic modern investigator who is not at all loathe to accept the surrogate research of another, even the second-hand or third-hand data provided by the latest electronic device of "information retrieval." May his tribe decrease!)

The world of learning is twice blessed when this avid collector is also the founder of a library dedicated to the effective use of the books which he has carefully brought together. It is thrice blessed when the collector has developed an acknowledged expertise in the field of his collecting interest, founded on sound training and nurtured by continuing study and research of his own. Then we can with Christopher Smart "bless God in the libraries of the learned."

To list the libraries which have emerged from such efforts would be to carry coals to Newcastle for the readership of OCTAVO. They are many in number and the ornaments of their country, and more than that, the resources upon which deposits of learning and the practical arts are founded.

Such a library and such a collector are the Burndy Library and Bern Dibner. This little jewel of a library building in Norwalk, now about to be expanded in its physical dimensions, is located almost in the middle of the Northeast Corridor, readily accessible to the research community of the East. Bern Dibner is a deeply cultivated man whose avocation — the history of science — has now in retirement become his chief interest in life. His library, of which he is both founder and director, is a public institution dedicated to scholarship and education, and to education in a broad sense of the term since the Library has been known to provide exhibits for the schools as well as sponsorship of lectures. It is obvious to even a casual visitor at the Burndy Library that its founder has almost a missionary zeal in promoting interest in the history of science and technology and appreciation of the work of scientists in the improvement of the condition of mankind.

Doctor Dibner's formal education was in engineering, and his interests have centered about electricity and magnetism. Of these interests there is ample evidence both in the collection itself and in the great variety of historical scientific instruments and equipment which are to be seen wherever one turns one's



head. However, Bern Dibner goes much further and much deeper than these, for he is profoundly conscious of the fact that pure research underlies the technologies and is at the forefront of their development.

If only one indicator of the depth of the collection were to be singled out, it would be the Library's more than 300 incunabula, representing such great figures in the history of learning as Regiomontanus in astronomy; Alhazen and Paccioli in mathematics; Mesue, Rhases, and Savonarola in medicine; Thomas Aquinas, Roger Bacon, Albertus Magnus, and Paludanus in philosophy, and Brunschwig in chemistry. In first editions the Burndy Library lists among its treasures such items as Darwin's *On the Origin of Species* (1859), Newton's *Principia* (1687), Huygens' *Horologium Oscillatorium* (1673), Vesalius' *De Humani Corporis Fabrica* (1543), Harvey's *Exercitatio Anatomica de Motu Cordis* (1628), Copernicus' *De Revolutionibus Orbium Coelestium* (1543), Kepler's *Astronomia Nova* (1609), Tycho Brahe's *Epistolarum Astronomicarum* (1596), Boyle's *The Sceptical Chymist* (1661), Volta's own copy of his *Novus ac Simplicissimus Electricorum Tentaminum* (1771), Galvani's *De Viribus Electricitatis in Motu Musculari* (1791), Faraday's *Experimental Researches in Electricity* (1832-1852), Henry's *On the Application of the Principle of the Galvanic Multiplier to Electro-Magnetic Apparatus* (1831), Descartes' *Discours de la Méthode* (1637), and the copy of Boyle's *De Coloribus* (1665) which was owned by Lavoisier. In the Burndy collection some 250 volumes from the private library of John Tyndall are to be found and some 300 items from the library of Alessandro Volta, to mention only two of its significant deposits.

The scientific instruments and equipment displayed in various locations in the Library all have direct significance in the history of science and technology. This interest Bern Dibner shares with other collectors in the field of science and technology expresses, it would seem, the close relationship between scientific thinking and the tool or instrument. Among these are a bottle-type generator made in Venice in 1740, the DeSaussure glass disc machine made in Paris in 1805, the Nairne Electrical Machine, a collection of early Leyden jars, early telescopes, famous examples of microscopes, surveyor's levels and transits, and telegraph equipment. The Library owns a significant portion of the Groenendijk Collection of laboratory equipment. It also displays the large Westinghouse Hibben collection of incandescent bulbs and vacuum tubes, dating from 1890 to 1915.

Mr. Dibner has a passion for the original and the unique as shown by the manuscript holdings of the Burndy Library, which are impressive in numbers and in quality. They include items by Sir Isaac Newton, a precious letter by Galileo, forty letters by Michael Faraday, examples of manuscripts of such widely assorted scientists as Kepler, Pasteur, Born, Planck, Priestley, and Euler, and some rare examples of the work of Röntgen.

Within the confines of a short essay it is only possible to hint at the rich variety of the Burndy collection. A much fuller description can be found in an article by Gordon D. Friedlander which was published in the *IEEE Spectrum* (Vol. 7, No. 3, March 1970, pp. 54-64).

What does this remarkable collection and the Library itself tell us about Dr.



Bern Dibner? We have already alluded to two of the characteristics of his collecting motives: the instinct for the original and the desire for completeness. In these he has placed his Library directly in the service of the student and the scholar whose work will be significant only insofar as he has seen and examined all of the evidence. It is more than a mere bibliophilic curiosity which inspires the labors of Bern Dibner. He has a deep understanding of research and its conditions and demands. His collection must respond to the creative and investigative urge of the serious scholar. Although, happily, he is not in the position of having to wear the old coat in order to buy the new book, he has purchased with great discrimination based on the breadth of his knowledge and learning. The collection is constantly growing. 1900 was chosen as the terminal date for collecting the classics of science since most of the basic theories in physical science were formulated by then. However, Dr. Dibner has interpreted this date generously and has made exceptions where necessary. For instance, he has acknowledged the great developments of nuclear science and the exploration of space, the former by collections of treatises, correspondence, and books by and relating to Einstein, Bohr, Fermi, Planck, and Rutherford.

His interests extend beyond the curatorial to include an impressive program of publication, the most recent venture consisting of a series entitled "Heralds of Science" which will consist of "facsimiles of two hundred epochal books and pamphlets in the physical and biological sciences that were instrumental in establishing our age of science." The year 1972 saw the publication of *A History of Electricity and Magnetism* by Herbert W. Meyer with a foreword by Bern Dibner. These are only the most recent examples of the publishing program of the Library which has been in progress since its founding. The Library has also joined Fairfield University in sponsoring a lecture series on the history and philosophy of science. Two lectures in this series have been given, one by Prof. W. M. Brown of Trinity College on "Induction and Discovery," and another by Prof. Paul Sherman of Pace College on "The Crime of Galileo."

Reference has been made earlier to the program of exhibits sponsored by the Burndy Library both within its own walls and outside. In the last year the Library showed a group of seventeen models of machines and devices designed by Leonardo da Vinci which had been prepared by the IBM Corporation as well as exhibits commemorating the centennial of the birth of Sir Ernest Rutherford, and an exhibit drawn from the Burndy graphics collection entitled "Popular Images of Science." Brandeis University was privileged to show some one hundred engravings of Stradanus from the Burndy collection. Loans of graphics were also made to the American Institute of Physics and Fairfield University.

Bern Dibner's association with higher education and libraries is extensive. He is a consultant to the Smithsonian Institution in the field of electrical equipment, a fellow of Brandeis University, a trustee of the University of Bridgeport, a fellow of the Pierport Morgan Library, and a trustee of the Yale Medical Library, to mention only a few of these connections. To all of these he has contributed valuable advice and counsel. However, the crowning achievement of his later years will almost certainly be acknowledged to be the Burndy Library where all of his interests in the advancement of knowledge and the fostering of research are exemplified and put to the service of students of all ages.

ON COLLECTING VINCIANA:  
THE DIBNER COLLECTION AT BRANDEIS UNIVERSITY

If you climb the handsome stairway to the mezzanine level of the Goldfarb Library, walk past the exhibit cases and turn left, stroll between the study-carrels on your right and open stacks on your left, straight ahead above twin doors a trim bronze plaque reads: Leonardo da Vinci Study. On entering the room, the first impact is made by the window forming the entire opposite wall. Through it you glimpse a portion of the dense grove, now in spring-time bloom, which covers the slope behind the Library and across the road a portion of the Academic Quadrangle on its steeply rising knoll.

Tearing oneself away from the landscape, an inspection of the da Vinci Study reveals that it occupies a corner of the Goldfarb Library. Modest in dimension and simply furnished, the dominant feature is E. Z. Steever's fine bronze head of Leonardo. The piercing eye and handsome beard convey nothing of the secretiveness which was said to characterize Leonardo. Standing there in the middle of the room, you notice with a slight start that the stillness is broken by a gentle swish of air from the decorative louvers overhead which conceal the air-conditioning and humidity control ducts. In one corner the eye catches an inconspicuous plaque and you walk over to read the inscription:

To Honor  
Leonardo da Vinci  
Engineer — Scientist — Artist  
This collection is the gift of  
Bern and Barbara Dibner  
1959

Stepping back, you sense that the plaque has raised an enquiry in your mind and you suddenly identify it by the unusual primacy and emphasis given to Leonardo as an engineer.

Once more in the center of the room, your eyes wander to the two facing walls covered by the built-in, glass-enclosed teak cabinets housing the Dibner Collection of Vinciana. Although students apparently have free access to the room, it is for the moment empty. Relieved not to disturb others, you move over to one of the wall cabinets. The books you happily note rest on their handsome shelves behind locked doors, secure from dust and light fingers. The shelving is generous in depth and height and with good reason, for almost half of the volumes are folio in size. With some craning of the neck, now left now right, you begin reading the titles on the spine; after a short span of shelf reading, you realize that the eye had been deciphering words in Latin, Italian, French, Spanish, German and English and has passed without comprehension over some non-western alphabets. And with a slight shrug of self-mocking dismay, you note that you have read only two shelves. Perhaps memory of some undergraduate course in Renaissance history, art, or the history of science now floods in to recall lavish descriptions of "universal genius," "a man before his time," and "the artist-scientist *par excellence*." And you wonder with wry amusement how much

as a student you really did learn about Leonardo and how much was “communicated” later through the stereotype imageries of film, television and novelistic biographies. For the moment, you wisely conclude that the doubts are better unresolved. In any case there is no time for introspective scrupulosities; the questions rushing in on you are now more concrete and more specific. How was the collection formed? How did it get to Brandeis University? What is in the collection? How may it be used? How does it compare with others?

As a chronological survey of the printing history of the *Trattato della Pittura* reveals, there has been a steadily increasing interest in Leonardo since the 17th century, with an extraordinary rise since 1860 when Burckhardt’s *Civilization of the Renaissance in Italy* was first published, with its intriguing assertion that “the colossal outlines of Leonardo’s nature can never be more than divinely and distantly conceived.” Where artists had earlier kept Leonardo’s memory green, it was now the time of scholars to pay homage. The new approach coincided with, and was in part nurtured by, the 19th century success of academic history as a university discipline and by the 20th century development of the art-historical approach and professional concern with the history of science, technology and engineering.

Interest in Leonardo was thus not only increasing rapidly, it was also taking new forms. This was evidenced as early as 1883 when Jean Paul Richter published his massive *The Literary Works of Leonardo da Vinci*, launching thereby a host of studies on the intellectual and philosophic aspect of the Florentine’s achievement. Richter’s scholarly apparatus and bibliography incidentally dramatized the dispersion of Leonardo’s manuscript remains and challenged librarians, bibliographers and scholars to introduce some element of bibliographic control on the one hand and on the other to ease the problem of scholarship by providing a series of facsimile publications which would transmit both text and drawing to wider circles of researchers.

The new approach was apparent by the end of the 19th century when the Castello Sforzesco’s Codex Trivulzi was published in Milan in 1891. Three years later a decade of facsimile publishing began with the first installment of *Il Codice Atlantico* (Milan, 1894-1904), that large portion of Leonardo’s surviving papers which came to the Biblioteca Ambrosiana through Cardinal Borromeo in 1603. Thereafter, all the major repositories of da Vinci manuscripts published their holdings, many with the aid of Reale Commissione Vincia. Before the outbreak of World War II once more put a stop to international scholarly co-operation, the easy accessibility of Leonardo’s works had stimulated a vast outpouring of scholarly monographs and articles in learned journals throughout the world. Thus, the three-quarters of a century which followed Burckhardt had done much to dispel his claim of inscrutable mystery: the scholarship of these years had reproduced a vast body of the manuscripts in facsimile editions, numerous editions of the *Treatise on Painting*, many anthologies of Leonardo’s works, numerous reproductions of his painting and drawings, and a considerable body of critical and biographical material. The problem confronting scholars now was no longer the dispersion of Leonardo’s manuscript remains but rather the dispersion of the studies about him.



Under these conditions, collecting Vinciana seemed a most dubious undertaking. With all the original manuscripts safely locked up in institutional libraries abroad, the few letters in archives, and without any publications to catch the first edition hunter's attention, why should any one bother? Since it was reasonable to assume that the major research libraries would have rich holdings of the printed sources of Vinciana, the chief justification for collecting Leonardo would be in connection with monographs about him. But as the first kind of collecting by research libraries inevitably stimulated their acquisition of the related studies, there would appear to be little hope for assembling a private collection that could be hailed as distinctive on either count. Rational considerations, of course, rarely curb the passions of a collector; but as it turned out, the assumption about the rich holdings of printed sources by the research libraries was false and the conclusions about their monographic holdings was of questionable validity.

When Bern Dibner first became interested in collecting Leonardo, the Lieb Memorial Collection of Vinciana at the Stevens Institute of Technology, Hoboken, N. J. was already in existence. Its catalogue, compiled by Maureen Cobb Mabbott, was published in 1936, and stimulated rather than deterred Dibner from going ahead. It was a conclusion which could have been amply reinforced by a simple statistical analysis of Mrs. Mabbott's *Checklist of the editions of Leonardo da Vinci works*, which the New York Public Library published in 1935.

Census of Leonardo Titles in 21 Libraries

<u>Classes of Printed Sources</u>	<u>Total: 21 Libraries</u>	<u>Stevens</u>	<u>Harvard</u>	<u>British Museum</u>	<u>N.Y.P.L.</u>	<u>Library of Congress</u>
Treatises on Painting	46	26	13	15	9	10
Treatise on Motion and Measure of Water	3	2	2	3	1	1
Facsimile Editions of Designs	43	33	22	15	23	16
Anthologies	<u>21</u>	<u>11</u>	<u>7</u>	<u>10</u>	<u>4</u>	<u>4</u>
Total	113	72	44	43	37	31

Two observations are apparent from Mrs. Mabbott's census of the titles held by the 21 libraries surveyed. The Lieb collection had only 63% of the census titles and in the four major research libraries the titles held ranged from 27% to 40%. Clearly, neither the Lieb collection nor the major research libraries had preempted the field insofar as the printed sources were concerned. And although monographs were not included in Mrs. Mabbott's survey, it was a plausible supposition that there might be similar weaknesses in that area as well.



Mrs. Mabbott's 1935 census and 1936 catalogue were coincidental rather than causal in Dibner's decision to collect Leonardo da Vinci on an intensive and systematic basis. He had been acquiring books, as his means permitted, ever since his student years. In 1935 he founded the Burndy Library, a dozen years after he had launched the Burndy Corporation and his career as an industrialist. It was about this time that he became conscious of his strong interest in Leonardo. Trained as an electrical engineer, it is not surprising that Dibner was powerfully attracted to da Vinci's achievements as an engineer. Despite the depressed economic climate of the 1930's his young firm was flourishing and he found it possible to divert time, energy and some money to his new interest. The very small collection he had acquired both whetted his appetite and sketched out the dimensions of his problem. The solution — to travel in Europe for a year and examine the major repositories — was an indication of his passionate involvement. Evidence of his early commitment can be traced in a series of engineer's note books, written in a precise drafting hand and containing desiderata lists, bibliographical and chronological data, and notes on repositories and their manuscripts. Even more revelatory of the man are the critical summaries of his reading, reference sketches of the drawings, and an engineer's systematic analysis of the working feasibility of many of the technological drawings. The note books — now at Brandeis — are a rich clue to a deepening immersion into his subject and breathe the spirit which reflects the establishment of the collection in general and of Dibner's scholarly pursuit of Leonardo as an engineer in particular.

The European year naturally witnessed a substantial growth in his Leonardo collection. Equally significant was the decision to amplify the collection by cognate and supplementary materials on Renaissance science. One consequence was the foundation of the separate incunabula collection which enormously enriched the Burndy Library as a specialized repository devoted to the origins of the physical and biological sciences. The war years apart, the da Vinci collection continued to grow steadily. By 1953 when Dibner mounted an exhibition at Norwalk in connection with the quincentenary celebration of Leonardo's birth — one of many for the *Celebrazioni Vinciane* — in addition to the IBM scale models and the usual facsimiles of Leonardo's art and drawings, he also presented a rich selection of printed works from the da Vinci collection which then numbered 800 books and pamphlets.

The da Vinci collection which Dibner assembled was — and remains — a basic working collection of all the published facsimile and textual editions of Leonardo's scattered drawings and scribblings, supplemented by monographic studies devoted to all aspects of Leonardo's interest and achievements. Although fully relishing Leonardo's fundamental devotion to art as the queen of the sciences, Dibner himself was most directly excited by da Vinci's career as an engineer, an area where his own professional training provided him with insights and skills not easily acquired by the ordinary collector or historian. His expertise was revealed in 1946 when his first scholarly work appeared. Entitled *Leonardo da Vinci, military engineer* and issued in connection with honors paid on the occasion of Dr. George Sarton's 60th birthday, the little treatise established

Dibner's reputation as a specialist in this phase of Renaissance history. When the discovery of the Madrid codices was announced in February 1967, new materials on this aspect of Leonardo's career became available and Dibner was invited to contribute a further chapter to a volume of interpretative essays to accompany the multi-volume facsimile edition. Few are the men who have combined their professional skills and collecting interests and happily brought them to so significant a scholarly fruition!

Obviously then, Bern Dibner's collection of Leonardo da Vinci held that special place in the heart accorded to all first loves, a piece of his own life which differentiated it from the other works now rapidly crowding the shelves of the Burndy Library. Nevertheless, and despite this strong personal tie, it was his da Vinci collection, now totaling 1200 pieces, which Bern Dibner chose to present as a suitable gift to mark the dedication of the Goldfarb Library at Brandeis University in 1959. For his own Burndy Library which opened its own new building in 1964 Dibner started to assemble another da Vinci collection and today its Leonardo Room houses about 200 titles almost solely devoted to da Vinci's scientific and technological interest. There has been, as a result, a multiplication and not a division of labor, for Dibner has added regularly to the Brandeis holdings from the date of his gift to the present.

The Dibner Collection of Vinciana has thus been a stellar part of the Special Collection holdings of the Brandeis University Library for fourteen years and during the last eight of these years Bern Dibner has been President of the Society of Bibliophiles, a group which has undertaken to support the growth of special collections at Brandeis. Although the da Vinci collection is little used by undergraduates, the materials are consulted by graduate students in Renaissance history, art, and history of science, as well as by an infrequent visiting scholar. On the occasion of the opening of the remodelled Rapaport Exhibition Hall in 1967 the entire collection was moved in and put on public display to accompany the IBM collection of scale models and art reproductions; it was unquestionably one of the more popular exhibitions organized by the Library. At other times, however, the casual visitor touring the Library finds the Leonardo Study an intriguing spot to spend a moment, if only for the opportunity it provides to sit and relax in quiet.

The Dibner da Vinci collection at Brandeis is essentially a documentation collection, a research collection of works by and specifically about Leonardo. Its assemblage of the major facsimile editions, themselves now rare and costly, represents a major boon to the scholar. As is well known, the 7000 pages of manuscripts which Leonardo left to his pupil and friend, Francesco Melzi, had in the course of time, been widely scattered. In the past ninety years facsimile editions have permitted scholars to re-assemble what time and man have dispersed. Of these, the most notable, the Codex Atlanticus at the Ambrosian Library in Milan, contains the bulk of Leonardo's scientific and technological drawings. The library of the Institute of France has held fourteen manuscripts since Napoleon's time, including the famous *Codex on the Eye*. In England, the British Museum has owned the Codex Arundel since 1831. Thomas Howard, Earl of Arundel, originally acquired it by purchase in Spain in 1636. Windsor

Castle possesses nearly all of Leonardo's anatomical studies as well as the great body of his artistic drawings. Of the latter, Sir Kenneth Clark published a magnificent catalogue in 1935. These are but the major facsimile editions which have been published in the past century, all of which are to be found in the Brandeis collection.

The famous *Treatise on Painting* was assembled from disparate manuscripts and first published in full only as late as 1882 in Vienna. In the past three hundred years there have been about seventy-five editions of this work in almost all the languages of Europe and nearly all are to be found in the Brandeis collection. Anthologies of Leonardo's writings have been an equally popular publishing activity. Whether vast or small in scope, almost all are represented in the collection. Of these, the most exhaustive — and still the definitive edition — is Jean Paul Richter's *The Literary Works of Leonardo da Vinci*, first published in 1883 and revised in 1939.

These printed sources are amplified by an extensive body of monographic materials in book and pamphlet form published in all the languages of Europe as well as a few titles in Russian and Hebrew. It is in these studies that one senses the powerful attraction which da Vinci's versatile genius holds for modern man. The bond of Vincian scholarship is both international and inter-disciplinary and each year sees new insights applied to the body of source materials. The soon to be published Madrid Codices will, in their turn, undoubtedly provide another strong stimulus to scholarly interest and a new wave of monographic studies will inevitably follow. Hopefully, they will in time find their due place on the shelves of the Leonardo da Vinci Study.

Researchers who come to consult the Dibner Collection of Vinciana at Brandeis University will find that access to the materials in the Leonardo da Vinci Study is available through the Special Collections Department. The public catalogue on the main floor contains a complete listing of the holdings in two trays in the usual dictionary form of author, title, and subject cards. Added entries have also been provided for editor, translators, series, etc., and use of the collection is thus considerably facilitated by the full cataloguing. However, for the novice, it is perhaps necessary to point out that the materials are not found in the card catalogue by consulting *Vinci*, *Leonardo da* but rather by looking under *Leonardo da Vinci*. There is also a shelf-list catalogue in the Special Collections Reading Room in the mezzanine of the Rapaport Exhibition Hall.

Students from a distance who may wonder what they can find in the Dibner Collection of Vinciana have several avenues of approach. The principal bibliographical guide to da Vinci materials is Ettore Verga's *Bibliografia vinciana, 1493-1930*, 2 vols. (Bologna, 1931). It may also be helpful to consult Verga's *Gli studi intorno a Leonardo da Vinci nell'ultimo cinquantennio, 1872-1922* (Rome, 1923); or alternatively, Luca Beltrami's *Bibliografia vinciana, 1885-1919* (Rome, 1919). These words can be profitably supplemented by the *Raccolta vinciana*, a journal published irregularly since 1906 from the Castello Sforzesco in Milan, and recording a world bibliography of writings by and about Leonardo. Although the coverage is far from exhaustive, the critical annotations are most valuable. For the recent period, the most up to date survey of monographs and



articles is found in the annual *Bibliographic internationale de l'humanisme et de la renaissance* ((Geneva, 1966 —).

A convenient guide to the Leonardo manuscripts is Miss Kate Trauman Steinitz's *Manuscripts of Leonardo da Vinci; their history, with a description of the manuscript editions in facsimile* (Los Angeles, 1948). On this subject and the related facsimile editions, it will also be useful to consult Augusto Mariononi, "I Manoscritti di Leonardo da Vinci e le loro edizioni," in *Leonardo. Saggi e ricerche*, edited by Achille Marazza (Rome, 1954), 231-74. Both of these works will require revision with the forthcoming publication of the Madrid codices.

On the special subject of the treatises on painting, Miss Steinitz has prepared a valuable bibliographical study: *Leonardo da Vinci's Trattato della pittura; a bibliography of the printed editions, 1651-1956* (Copenhagen, 1958), with two supplements published in *Raccolta Vinciana* in 1960 and 1962.

As for inventories of holdings, mention has already been made to the Mabbot catalogue of the Lieb collection at the Stevens Institute published at Hoboken in 1936. For Dr. Belt's collection, Miss Steinitz and Margot Archer compiled a *Finding list of the Elmer Belt Library of Vinciana* (Los Angeles, 1947?). Both of these catalogues are now out of date and the long promised revision by Miss Steinitz of the Belt collection catalogue has not yet appeared. Printed catalogues are not available for the University of Rochester collection or for the Dibner Collection of Vinciana at Brandeis University.

It is not easy to compare the several da Vinci collections. The Lieb Collection at Stevens Institute, which was also founded by an electrical engineer, has about 800 titles (excluding clippings and ephemera), a goodly portion of which deals with the general history of aviation and technics as well as the cultural history of the Renaissance. All indications suggest that the collection has been stagnant for many years. The collection at the University of Rochester is new and at this writing rather small. The largest collection in the United States was formed by Dr. Elmer Belt who, while a medical student, found his interest in da Vinci aroused by the acquisition of a study of da Vinci as an anatomist. The Belt Collection, now housed at the University of California in Los Angeles, is still growing on a vigorous basis. However, it must be noted that the Belt Collection which naturally has great strength in anatomy also includes numerous works dealing with the general history of Italian art, architecture, sculpture, medicine, philosophy and literature as well as Vincian materials proper. It is as much a Renaissance as it is a da Vinci collection. The Dibner collection at Brandeis University, on the other hand, is basically restricted to works by or about da Vinci and with considerable strength in monographs on Leonardo as an engineer; for the supplementary and general works on Italian history and culture in the Renaissance period the student has the resources of the Brandeis University Library to fall back on. Thus, insofar as Vincian materials alone are concerned the Dibner and Belt collections are virtually on a par. Our scholars are indeed fortunate that the collecting interests and generosity of Bern Dibner has enabled the resources for this aspect of the Renaissance on the East Coast to match those on the West.